

### Remarks

Applicant requests reconsideration and allowance of this application in view of the following remarks.

Applicant acknowledges the withdrawal of the previous rejection based on the Nishino reference. Applicant respectfully traverses the current rejection of the claims under 35 U.S.C. Section 103.

As to the double patenting rejection, applicant will provide a terminal disclaimer upon the indication of allowable subject matter.

#### Claims 1 and 38

Claims 1 and 38 specify among other things a radial compressor. The Office Action combines two references, Dechene and Rossen, to meet this limitation.

The primary reference, Dechene, uses two compressors--a compressor 10 for compressing *ambient air upstream of the sieve beds*, and a compressor 40 for compressing the oxygen-enriched output of the sieve beds. The Dechene reference states that its compressor 40 is a diaphragm-type compressor, and that "it is contemplated that other types of compressors which are suitable for pumping and compressing about 95 percent pure oxygen gas may also be utilized."

The Office Action suggests substituting a radial compressor for Dechene's compressor 40, in view of Rossen.

The one and only compressor in Rossen is the compressor 4, which compresses *ambient air*. Rossen indicates that this compressor 4 can be a radial compressor.

There is, however, no compressor in Rossen that is indicated as being suitable for compressing about 95 percent pure oxygen gas. Rossen in fact does not show any compressor that compresses oxygen-enriched gas. So Rossen is not of any help when looking for a replacement for Dechene's "compressor that is suitable for compressing about 95% pure oxygen gas". Rossen simply does not show a compressor for the oxygen enriched gas stream.

If there were any motivation to use Rossen's teachings in Dechene, it would result in the substitution of Rossen's *ambient air compressor 4* for Dechene's *ambient air compressor 10*. There is, however, no motivation to substitute Rossen's ambient air compressor 4 for Dechene's oxygen compressor 40. If there is any motivation, it appears to be based on a hindsight reconstruction of the presently claimed invention, which is not permitted.

As a result, the references can not be combined as suggested in the Office Action, and so the rejection is improper.

In addition, claim 1 specifies a high pressure storage container for portable storage of high pressure oxygen-enriched gas. The Office Action does not point out what structure in Dechene meets the terms of this element. There is no indication in Dechene that the tank 46 is portable. Therefore, the rejection of claim 1 is improper for this reason also.

#### Claims 2-4 and 7-8

Applicant respectfully traverses the rejection of claims 2-4 and 7-8 under Section 103 as being obvious over Dechene and Rossen in view of Beysel.

Claim 2 recites an apparatus according to claim 1, wherein the oxygen-enriched gas is prioritized by a portion thereof being capable of being fed to a person and a portion thereof being

capable of being fed to the radial compressor, and the prioritization includes a determination of a minimum oxygen concentration of the oxygen enriched gas by an oxygen sensor. The operation of the radial compressor is terminated when the enriched oxygen gas is below a predetermined oxygen level.

Beysel does discuss the concept of prioritization. However, Beysel does not discuss controlling operation of a compressor by the prioritization process. Claim 2 specifies that the operation of the radial compressor is terminated when the enriched oxygen gas is below a predetermined oxygen level. Since Beysel does not teach or suggest controlling a compressor (a significantly different operation than shutting off flow to a tank), then Beysel can not add the missing subject matter so as to render claim 2 obvious in view of the suggested combination of references. Therefore, claim 2 is allowable.

Claim 3 recites an apparatus according to claim 1 including a buffer tank that is operatively connected to the oxygen source and to the radial compressor. The oxygen-enriched gas is prioritized by a portion thereof being capable of being fed from the buffer tank to a person and a portion thereof being capable of being fed from the buffer tank to the radial compressor. The prioritization includes a determination of the oxygen concentration of the oxygen enriched gas by an oxygen sensor and the operation of the radial compressor being terminated when the enriched oxygen gas is below a predetermined oxygen level.

As noted above, Beysel does discuss the concept of prioritization. However, Beysel does not disclose a buffer tank that feeds a compressor as is specified in claim 3. Therefore, Beysel

can not add the missing subject matter so as to render claim 3 obvious in view of the suggested combination of references. Therefore, claim 3 is allowable.

Claim 4 recites an apparatus according to claim 1 wherein the oxygen-enriched gas is prioritized by a portion being capable of being fed to a person and a portion being capable of being fed to a compressor, and wherein the prioritization includes terminating the flow of the oxygen-enriched gas to the high-pressure storage container when the enriched oxygen gas is below a predetermined oxygen level.

As noted above, Beysel does discuss the concept of prioritization. However, Beysel prioritizes between a mask and a storage tank. Beysel does not discuss prioritizing between a mask and a compressor. Since Beysel does not teach or suggest prioritizing between a mask and a compressor, then Beysel can not add the missing subject matter so as to render claim 4 obvious in view of the suggested combination of references. Therefore, claim 4 is allowable.

Claim 7 recites an apparatus according to claim 3 wherein the oxygen source is an oxygen concentrator, and wherein the enriched oxygen gas is at least 85% oxygen by volume.

Claim 8 recites an apparatus according to claim 4 wherein the oxygen source is an oxygen concentrator, and wherein the enriched oxygen gas is at least 85% oxygen by volume. Each one of these claims is allowable at least for the reasons set forth above with respect to its base claim.

Claims 5-6, 9-10, 20-24, and 28-37

Applicant respectfully traverses the rejection of claims 5-6, 9-10, 20-24, and 28-37 under Section 103 as being obvious over Dechene and Rossen and Beysel in view of Odagiri. Each one of these claims is allowable at least for the reasons set forth above with respect to its base

claim. In addition, each one of these claims adds further features and limitations that provide a separate basis for patentability. For example, claim 28 specifies that the radial compressor contains a plurality of cylinders each having a piston therein, and the pistons are radially arranged around a crankshaft. The oxygen-enriched gas is sequentially compressed by each piston. Each sequential cylinder has a smaller compressible area than the previous cylinder, and each sequential cylinder is located in a non-adjacent position circumferentially about the crankshaft. As illustrated in Figure 11 herein, this positioning of the radial compressor's pistons and cylinders provides that the forces are generally balanced, thereby effectuating efficient transfer of energy. Since there is more efficient transfer of energy within the system, less energy is required to operate the device, and a smoother and quieter operation is provided. This structure is not shown in any of the references. Therefore, claim 28 is allowable.

All of the claims of this application being allowable, applicant requests issuance of a notice of allowability.

The Examiner is requested to telephone applicant's undersigned attorney at (216) 622-8578 if there are questions on this matter.

Respectfully submitted,

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